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Current Teaching Strategies for the Writing, Reading and Literary Education of Pupils with ADHD

Abstract: ADHD (attention deficit hyperactivity disorder) presents challenges that affect everyday life and learning for pupils as well as their teachers and parents. Much has been written and researched when it comes to the disorder, with some conclusions resulting in considerable debate and controversy. Experts on ADHD offer a number of suggestions to help pupils with reading and writing. This paper presents some ways to provide pupils with secondary "fidget" activities, ones that don't distract pupils from the task at hand but actually help them focus on a task. For example, allowing them to listen to music while reading a textbook, having students listen to a recorded version of a book while reading the text, or giving students an extra piece of paper to doodle on while working on a writing assignment. Other strategies that build focus and comprehension, like reading aloud, previewing materials, asking questions, identifying the main ideas, word games and other components of successful reading programs, are helpful at an early age. Even if ADHD pupils master the mechanics of reading, many have trouble understanding the text, making connections within the story, and relating what they're reading to what they already know. Fortunately, reading comprehension skills and strategies can be taught. Children who learn multiple reading strategies, and are guided in their use, eventually choose some to use on their own.

Keywords: Attention deficit hyperactivity disorder (ADHD), pupils with ADHD, reading, writing, teaching strategies.

Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common disorders of childhood and, as of 2006, 4.5 million children have been diagnosed at some time with ADHD. ADHD is described as having "many faces", and as being "one of the most talked-about and controversial subjects in education", causing "heated debates" (Bloom et Cohen, 2006). To be consistent with the existing literature, the term "ADHD" will be used in this paper and will represent the full spectrum of attention disorders.

There has been great controversy surrounding the acceptance of ADHD as a "real" disorder, which is likely related to the lack of a definitive diagnostic test and the perceived overuse of stimulant medication with children. The National Institutes of Mental Health (NIMH, 2009) states that ADHD is one of the most common childhood disorders and can continue through adolescence and into adulthood and involves difficulty staying focused and paying attention, difficulty controlling behaviour, hyperactivity (overactivity). The U.S. Department of Education (U.S. DOE, 2009) states that ADHD is a neurological condition that involves problems with inattention and hyperactivity – impulsivity that are developmentally inconsistent with the age of the child and is a function of the developmental failure in the brain circuitry that monitors inhibition and self-control.

However, most professionals use the APA diagnostics manuals, though some use the ICD-10 Classification system of the World Health Organization, which uses the term hyperkinetic disorder. In the most recent edition, the DSM-V (APA, 2013), ADHD is defined as a persistent pattern of inattention and/or hyperactivity – impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of development.

The presented paper will focus on a brief definition of ADHD syndrome and its symptoms in the educational content. Subsequently, effective and verified strategies for the reading, writing and literary education of pupils with ADHD will be presented.

Psychological, social and behavioural characteristics of students with ADHD

Because ADHD is such a constellation of characteristics, and the chance of the disorder co-existing with one or more disorders that also have sets of related characteristics, the manifestation of ADHD in a particular individual needs to be described across domains.

Characteristics associated with ADHD include distractibility, impulsivity, disorganization, emotional lability, risk-taking, depression, and anxiety. School failure, social problems, and task achievement can result in lower self-esteem, feelings of worthlessness, and more impulsive decision-making. Learning disabilities, conduct disorders, anxiety, oppositional defiant disorder, depression, bipolar disorder, Tourette Syndrome, sleep disorders, bed-wetting, and substance abuse may co-exist with ADHD (Barkley, 2005).

Behavioural Models. The criteria listed in the DSM-V describe many of the behaviours associated with ADHD, but a shift from the traditional view occurred when Barkley developed a paradigm that described a chronic lag of 30 % – 40 % in the development of self-control and inhibition and presented a new construct using these descriptors. He recommended making inattention a separate category and proposed a theory of ADHD that has inhibition (which he refers to as the executive system that affects self-control and self-regulation) at the core. The new construct depicts the lag in inhibition (motor inhibition, sensitivity to error, interference control) as the first step in the system that impedes the development of the four executive functions: nonverbal working memory (includes time awareness or "time-blindness"), internalization of speech (includes emotional self-regulation), intrinsic motivation, and "play to yourself" (includes verbal fluency) (Mrug, 2009).

Adaptive behaviours. Low frustration tolerance, emotional lability, bossiness, temper outbursts, dysphoria, low self-esteem, laziness, and irresponsibility are features associated with ADHD. Teenagers with ADHD have more problems with driving and anger control (Richards, 2007).

The social manifestations of ADHD change across the lifespan. Peer rejection and negative imbalance between given and received liking ratings

(children with ADHD liked others more than they were liked) discriminated children with ADHD from children without ADHD. Children with ADHD have fewer close friends and are rejected more often by their peers. Poor social functioning has also been found to be the best predictor of life dissatisfaction in college students with ADHD. Some studies reflect problems with sibling relationships as well as peers. Other studies focused on impaired interpersonal relationships for adults, and a growing body of literature is focused on the workplace and marital problems associated with ADHD (Wymbs et al., 2008).

Though research on the female population is not extensive, a study that compared girls with and without ADHD found that girls were more likely to be inattentive, were 2.5 times more likely to be identified as having a learning disability, and were 16 times more likely to have repeated a grade. Prevalence of mood and anxiety disorders were similar to the data from research conducted with boys with ADHD, though girls were at greater risk for substance abuse. Data on social concerns and problems with interpersonal functioning were similar to the data obtained from research on boys with ADHD. Gender-specific concerns also complicate identification and treatment (Quinn, 2005).

Educational Considerations

For students with ADHD, educational intervention needs to be more intense, engaging, and comprehensive than for students without ADHD. Research has shown that multi-modal treatment is required to support students with ADHD. ADHD is multi-faceted disorder, which requires thoughtful, individualized intervention planning. Assessment should produce a "blueprint" that includes clear descriptions of strengths, weaknesses, and needs so that direct, explicit interventions and appropriate learning supports/accommodations/modifications can be put in place (MTA, 1999).

Research has shown that teacher knowledge is an important variable in identification and intervention planning, but general education teachers may not have extensive knowledge about ADHD. This finding is a major

concern because referral, identification, and intervention planning rely heavily on teacher report. Professional development focused on ADHD takes on even greater importance because experience does not necessarily increase teachers' knowledge of ADHD (Weynadt et al., 2008).

The following practices were identified as being effective across the population: phoneme awareness instruction, practice using oral guided reading with explicit corrective feedback, direct and indirect instruction of vocabulary (with repetition and multiple exposures), and instruction using a combination of reading comprehension techniques. To supplement instructional practices and provide a more positive climate to support ADHD, the Institute of Educational Sciences (in 2008) recommended clearly defining and teaching behavioural expectations, adjusting the physical environment to support positive behaviour, individualizing instruction to foster engagement, and teaching/reinforcing prosocial skills (McIntosh et al., 2009).

Evidence has also supported the use of the following learning supports: action-oriented and highly structured tasks; explicit and multi-sensory instruction; enhanced stimulation (such as the use of colour); modified assignments (shorter lengths, smaller units); notetaking; adaptive technology; positive reinforcement; and study skills. Providing advance organizers and written summaries, clarifying directions, using preferential seating, reducing distraction, and previewing changes in routines are common accommodations; however, in keeping with the multi-modal framework, interventions should be comprehensive and provide "network of support" (Weynadt et al., 2008).

Effective writing educational strategies for the students with ADHD

Too often, students with ADHD get labelled as "problem students." They often get shuffled into special education programs even if they show no signs of developmental disability. Though these students' brains do work differently, studies prove that it doesn't preclude them from

being highly intelligent. That means teachers should pay special attention to help students with ADHD discover their potential and deal with the challenges they face in their learning process (Webb et al., 2005).

As essay writing is both the most common and the most complicated assignment for students, written instruction for students with ADHD requires special efforts. Each step of writing process may present certain difficulties for this group of students. On the next pages we present several strategies and solutions for the most common problems.

Difficulty Concentrating on Assignment

Research proves that ADHD doesn't result in less intelligence, but rather in difficulties controlling emotions, staying motivated, and organizing the thoughts. So a teacher's first task is teaching students to focus enough on a writing assignment.

Solution: Give clear, concise instructions.

When assigning an essay or other writing project, be specific and clear about what you expect. Don't leave a lot of room for interpretation. Instead of the assignment "Write about a joyous moment," include instructions in your writing prompt, such as:

Think about the last time you felt happy and joyful.

Describe the reasons for your happiness.

What exactly made you feel joy?

What can that feeling be compared to?

Make sure every student knows that he or she should come to you directly with any questions. Plan to take extra time reviewing the instructions with students one to one, writing down short instructions along the way (Barkley, 2005).

Difficulty Organizing Thoughts on Paper

Several studies have found that students with ADHD struggle with organizing their thoughts and mental recall. These students can often speak well and explain their thoughts orally, but not in writing.

Solution: Get them organized from the start.

Start each project with a simple note system. Give students the free-

dom to take their own notes and review them together if possible. Have students pay special attention to filing these notes in a large binder, folder, or other method for making storage and retrieval simple.

To help students understand how to organize their written thoughts, teach them mind mapping. A semantic mind map for an essay may include major nouns, verbs, and adjectives, as well as phrases to use in writing each paragraph. Some introductory and transition sentences will also come in handy. Another step after mind mapping is advanced outlining. Begin and end the initial outline with the words "Intro" and "Conclusion" as placeholders. Then have students expanded that outline on their own (Weynadt et al., 2008).

Difficulty with Sustained Work on a Single Task

ADHD can make it difficult for students to focus on long-term goals, leading to poor attention and concentration when the task requires work for an extended period of time.

Solution: Create small, manageable milestones.

Since accomplishing a five-page essay takes a lot of time, you can chop it into smaller, easier-to-manage pieces that can be worked on in rotation. Each piece may be checked separately if time allows. Treating every issue and section as an independent task will prevent students from feeling overwhelmed as they work toward a larger goal (Richards, 2007).

Difficulty in Meeting Deadlines

Deadlines are the things that discourage students with ADHD, as they work on assignments more slowly than their classmates, are often distracted, and tend to procrastinate.

Solution: Allow for procrastination.

It may sound ridiculous, but build procrastination into the writing process by breaking up the work and allowing for extra research, brainstorming, and other activities which diversify students' work while still focusing on the end result (Quinn, 2005).

Spelling Issues

Students with ADHD often have difficulties with writing, especially in terms of spelling. The most common issues are reversing or omitting letters, words, or phrases. Students may spell the same word differently within the same essay. That's why lots of attention should be paid to spelling.

Solution: Encourage spell checkers, dictionaries, and thesaurus.

There are plenty of writing apps and tools available to check spelling and grammar. As a teacher, you can introduce several apps and let students choose which ones work better for writing essays. When checking the submitted papers and grading the work, highlight the spelling mistakes so that students can pay special attention to the misspelled words and remember the correct variant (Wymbs et al., 2008).

Final Editing Issues

Students with ADHD may experience problems during the final editing of their work since, by this time, they will have read and reviewed it several times and may not be paying attention to mistakes.

Solution: Teach them to review their writing step by step.

Take an essay template as an example and show students how to revise it. Go through the editing process slowly, explaining the "why" behind certain changes, especially when it comes to grammatical issues. Assign students the task of revising each other's essays so that when they revise their own final draft, they'll know what to pay attention to and what common mistakes to look for.

Addressing the challenges unique to students with ADHD will help these students find ways to handle their condition effectively and even use it to their advantage. Their unique perspective can be channelled into creative writing, finding new solutions to problems, and most of all, finding, reaching, and even exceeding their goals and fulfilling their full potential (McIntosh et al., 2009).

Effective reading and literature educational strategies for the students with ADHD

In the first and second grade, most children learn to read. Beginning in third grade, they're expected to read to learn. They may be assigned to find facts on the Internet for a project on aquatic mammals, for instance, or asked to identify plot points in a work of fiction. The ability to extract meaning from written sources — to learn independently — becomes increasingly important with each new grade (Barkley, 2005).

Reading comprehension depends on the ability to quickly sound out and recognize words, which can be hard for students with attention deficit disorder (ADD ADHD) or learning disabilities like dyslexia (APA, 2013).

Even after the mechanics of reading have been mastered, many children with ADHD have trouble understanding the text, making connections within the story, and relating what they're reading to what they already know. Fortunately, reading comprehension skills and strategies can be learned. Children who are taught multiple strategies, and guided in their use, eventually choose some to use on their own.

Read to your student.

Even if a student can read on his own, there is value in reading aloud to him. A child's listening skills are usually stronger than his reading skills, so a student can comprehend more if he reads along silently as you read the book out loud.

Begin with short passages, and extend the time if a student maintains focus. Books on tape, with accompanying texts, provide another way to pair reading and listening (Richards, 2007).

Engage the imagination.

While a student reads or listens, encourage her to visualize the events in the story, creating a picture or movie in his/her mind. After a few pages, ask him/her to describe it (Quinn, 2005).

Show how books are organized.

Textbooks are often structured in a way that highlights and summarizes important material. Show a student how paying attention to captions, charts, section headings, and sample study questions can organize his thinking and provide valuable facts.

When a student reads fiction, train him to look for the five W's: *Who* are the main characters, *where* and *when* does the story take place, *what* conflicts do the characters face, and *why* do they act as they do.

Although newspaper and magazine articles don't always contain a narrative, information about the five W's typically appears in the first paragraph or two (Barkley, 2005).

Ask for predictions.

When reading a book with a student, stop occasionally to ask what he/she thinks might happen next. This requires him/her to integrate what he/she has learned so far about the characters and storyline—and about the way stories are typically organized—to anticipate the rest of the plot.

If he/she's reading a Harry Potter novel, for example, asks what he/she thinks will happen the next time Harry and Draco Malfoy face each other in a Quidditch match. Or get his/her opinion on what he/she thinks author J.K. Rowling will write about in the next book.

It doesn't matter if his/her hunches are correct: Asking for predictions encourages his/her to pay very close attention to what he/she reads. What's more, it helps you gauge just how much he/she comprehends (Wymbs et al., 2008).

Show interest in what your students are reading.

Ask them to tell you about the book or chapter she just finished. What was the main idea? Who was her favourite character? What did they like or dislike about the book? Did it remind them of other stories they have read or of experiences they have had?

If it was a textbook chapter, what did they learn, and how does it apply to what they are learning in school? Having to verbalize what they have read requires them to make sense of it.

If your students are unable to provide a coherent summary, read the book yourself. Engage them in a discussion of *your* favourite parts and characters, and talk about how you connected parts of the story so that it all gets together (Weynadt et al., 2008).

Encourage note-taking.

Have your student keep a notepad or index cards nearby to jot down important information as they read. Note-taking pushes a reader to make sense of the material, and the cards become terrific tools when studying for a test later on.

If a book belongs to your student, permit them to mark relevant details with a pencil or highlighter. Do this together the first few times—it's an opportunity to demonstrate how to pick out important facts.

Does your student learn best visually? Help them create a chart with boxes for the story's setting, characters' names, and major themes and events. Or show them how to make a mind map—a diagram that uses key words, colours, and symbols to represent ideas and information (McIntosh et al., 2009).

Increase word power.

The stronger your student's vocabulary, the better his or her comprehension—and the less frequently they'll put down a book to ask about a word.

If you know that a passage contains unfamiliar words, define them—or have the students look them up in a dictionary—before they begins to read (Mrug, 2009).

Translate figures of speech.

A student with a language-based learning disorder can be overly literal: Reading that a character "took the bull by the horns" or "looked like he'd seen a ghost" can stop them cold.

Help your student understand that a phrase that seems out of context may be a figure of speech. Together, compile a list of expressions and what they mean (Webb, 2005).

Teach your student to read between the lines.

Point out sentences in which information is implied, and ask him/her to fill in what's missing. He/She should understand that the statement, "George was excited about winning top prize at his school's science fair for the second time," means that George has won the science award once before (Webb, 2005).

Build on background knowledge.

It's easier to understand subject matter that you know something about. Help your student select reading materials that reflect his or her interests, and encourage them to bring their own experiences to their understanding of a book (Mrug, 2009).

Form a book group.

If your student has friends who enjoy similar books, get them together to discuss what they've read or to collaborate on a project, such as a mural or a skit about the story.

Once you've introduced your student to this array of reading comprehension strategies, have him or her write each of his favourites on a separate bookmark. They can use these in schoolbooks—choosing the strategy best-suited to each text—and have a handy reminder to hold their place (Weynadt et al., 2008).

Conclusion

Children with ADHD often have difficulty with reading comprehension because it depends on their ability to quickly sound out and recognize words- something that's hard for students with attention deficit disorder or learning disabilities like dyslexia (Mrug, 2009). Even if ADHD students master the mechanics of reading, many have trouble understanding the text, making connections within the story, and relating what they're reading to what they already know. Fortunately, reading comprehension skills and strategies can be taught. Children who learn mul-

tiple reading strategies, and are guided in their use, eventually choose some to use on their own. For students with ADHD, educational intervention needs to be more intense, engaging, and comprehensive than for students without ADHD. Research has shown that multi-modal treatment is required to support students with ADHD. ADHD is multi-faceted disorder, which requires thoughtful, individualized intervention planning. Assessment should produce a "blueprint" that includes clear descriptions of strengths, weaknesses, and needs so that direct, explicit interventions and appropriate learning supports /accommodations/ modifications can be put in place (MTA, 1999).

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